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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>25 January 2011</u>.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>2-22 and 29-37</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>2-22, 29-37</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

-     This action is responsive to the amendment and remarks file on 01/13/2010.

-     Claims 2-22, 29-37 are presented for further examination.

Response to Arguments

Applicant's arguments filed 1/25/2011 have been fully considered but they are not persuasive.

Applicant argues that Mathur fails to disclose the device that facilitate the communications by the device through a selected one of the plurality of communication protocols

In response to applicant's argument that the references fail to show "the device that facilitate the communications by the device through a selected one of the plurality of communication protocols", Mathur discloses the alleged missing limitation.

Mathur, in analogous art, demonstrates the system would search the appropriate drivers (communication information as there are plurality of drivers available in the system, see par 0072) in order to facilitate the communications via a different protocols (different drivers, par 0082) by utilizing the interface configuration information (detection routine, refer to par 0092).

In order to search for the appropriate drive to facilitate the communication, the system includes interrupt service routines handlers (i.e., interface configuration information, par 0088) or invoke a detection routine to perform functions calls to select the appropriate (refer to par 0091-0094)

Therefore, Mathur teaches the alleged missing limitation.

Applicant further argues that Marthur fails to disclose device communicating through

different communication protocols are not added to and simultaneously utilized in the system

with the approach of Mathur.

In response to applicant's argument that the references fail to show certain features of

applicant's invention, it is noted that the features upon which applicant relies (i.e.,

communicating through different communication protocols are not added to and simultaneously

utilized in the system) are not recited in the rejected claim(s). Although the claims are

interpreted in light of the specification, limitations from the specification are not read into the

claims. See In re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

Claims 2-22, 29-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Moyne (US 5,469,361) in view of Mathur et al hereinafter Mathur (US 2005/0097577).

1.   Referring to Claim 5, Moyne discloses a system (refer to Title) comprising:

a hardware subsystem (manufacturing equipment, refer to Col 4, Lines 27-67) that

includes at least one component (equipment controllers 13a-13s) adapted to carry an electrical

signal (commands, refer to Col 4, Lines 50-67) associated with one of a sensing operation and a

control operation (refer to Col 5, Lines 25-55);

an application database (database 27, Col 20, Lines 60-65) storing application service

configuration information (refer to Col 21, Lines 1-8) that corresponds to a manner of processing

information associated with the electrical signal (message, refer to Col 6, lines 1-5); and

a self configuring application services system (cell controller, refer to Col 5, Lines 15-25)

comprising an application system configuration module (routines modules) coupled to the

hardware subsystem (manufacturing equipment, refer to Col 4, Lines 27-67) and coupled to

retrieve application service configuration information from the application database (retrieves

data to be sent, refer to Col 19, Lines 14-19), the self-configuring application service system

operable itself for communication with the hardware subsystem using the application service

configuration information, this configuration including associating an event code with the

electrical signal (Refer to Col 19, Lines 10-20).

a signal database (database 22, refer to Col 8, Lines 15-40) storing interface

communications configuration information (refer to Col 8, Lines 54-67) corresponding to a

manner of managing communication between the hardware subsystem and the self-configuration

application system (refer to Col 7, Lines 5-20);

a self-configuring interface system (Message Parser 24, refer to Col 12, Lines 20-25)

coupled to the hardware subsystem and the application services system and comprising an

interface system configuration module coupled to retrieve interface configuration information

from the signal database and utilizes this configuration information to facilitate communication

between the hardware subsystem and the self-configuring application services system (refer to

Col 7, Lines 30-40 and Col 12, Lines 10-35).

Although Moyne disclosed the invention substantially as claimed, Moyne did not

explicitly disclosing regarding the self-configuration interface system utilizes the information

retrieves from signal database to facilitate communication between hardware subsystem and self-

configuring application services system via plurality of protocols.

Mathur, in an analogous art disclosed the self-configuration interface system utilizes the

information retrieves from signal database to facilitate communication between hardware

subsystem and self-configuring application services system via plurality of protocols (refer to par

0088, and par 0091- 0098).

It would have been obvious for one of ordinary skill in the art to combine the teaching of

Moyne with Mathur because Mathur's teaching would improve Moyne's system by it provides

the ability to support automatic sensing of devices to the users in the system.

2.   Referring to Claim 2, Moyne discloses the application service configuration information

references a software object for processing information associated with the electrical signal, and

the self-configuring application service system further comprises the software object (cell

controller, refer to Col 5, Lines 15-25)

3.   Referring to Claim 3, Moyne discloses the object database storing a version of the

software object (database stores the newest updated parameters/object, refer to Col 14, Lines 8-

50).

4.   Referring to Claim 4, Moyne discloses wherein the object database forms a portion of an

Object Database Management System (refer to Col 13, Lines 45-55)

5.   Referring to Claim 6, Moyne discloses wherein said interface configuration information

further references a software object that corresponds to a manner of processing information

associated with the electrical signal (refer to Col 8, Lines 54-67).

6.   Referring to Claim 7, Moyne discloses wherein the self-configuring interface system

further comprises the software object (refer to Col 3, Lines 1-15).

7.   Referring to Claim 8, Moyne discloses wherein an object database storing a version of

the software object (database stores the newest updated parameters/object, refer to Col 14, Lines

8-50).

8.   Referring to Claim 9, Moyne discloses wherein the object database forms a portion of an

Object Database Management System (refer to Col 13, Lines 45-55)

9.   Referring to Claim 10, Moyne discloses wherein the self-configuring interface system

communications with the hardware subsystem in accordance with the electrical signal, and

communications with the appliance services system in accordance with an event code that

corresponds to the electrical signal (refer Col 5, Lines 64-Col 6, Lines 15, and Col 6, Lines 55-61

and Col 7, Lines 65 and Col 8, Lines 8).

10.   Referring to Claim 11, Moyne discloses wherein the interface system communicates with

the hardware subsystem in accordance with the electrical signal, and communicates with the

software object and the application service system in accordance with the event code that

corresponds to the electrical signal (refer to Col 5, Lines 64- Col 6, Lines 55-61, Col 7, Lines 65

to Col 8, Lines 8, and Col 5, Lines 25-55).

11.   Referring to Claim 12, Moyne discloses

         a hardware subsystem (manufacturing equipment, refer to Col 4, Lines 27-67) that

includes a set of components adapted to carry electrical signal (commands, refer to Col 4, Lines

50-67), each electrical signal associated with one from the group of a sensing operation and a

control operation (refer to Col 5, Lines 25-55);

         an application database (database 27, Col 20, Lines 60-65) referencing a first software

object (refer to Col 21, Lines 1-8) that corresponds to a manner of processing information

associated with an electrical signal (message, refer to Col 6, lines 1-5, and Col 14, Lines 50-67

and Col 15);

         a self-configuring application services system (refer to Col 5, Lines 15-25) comprising:

application service system configuration module (Main program module 21, refer to Col 7, Lines

60-67) coupled to the hardware subsystem (manufacturing equipment, refer to Col 4, Lines 27-

67) and coupled to retrieve application service configuration information from the application

database (refer to Col 8, Lines 1-15); and

the first software object (routine to be called, refer to Col 8, Lines 40-65);

a signal database storing interface communication configuration information (22, refer to

Col 6, Lines 1-10) corresponding to a manner of managing communication between the

hardware subsystem and the self-configuring application services system (refer to Col 8, Lines

54-57 and Col 7, Lines 5-20) referencing a second software object (routine to be called, refer to

Col 8, Lines 40-65) that corresponds to a manner of processing information associated with an

electrical signal and associates an event code with the electrical signal

a self-configuring interface system (Message Parser 24, refer to Col 12, Lines 20-25)

coupled to the hardware subsystem and the application services system and comprising an

interface system configuration module coupled to retrieve interface configuration information

from the signal database and facilitate communication between the hardware subsystem and the

self-configuring application services system and the second software object (refer to Col 12,

Lines 20-35).

Although Moyne disclosed the invention substantially as claimed, Moyne did not

explicitly disclosing regarding the self-configuration interface system utilizes the information

retrieves from signal database to facilitate communication between hardware subsystem and self-

configuring application services system via plurality of protocols.

Mathur, in an analogous art disclosed the self-configuration interface system utilizes the

information retrieves from signal database to facilitate communication between hardware

subsystem and self-configuring application services system via plurality of protocols (refer to par 0093).

It would have been obvious for one of ordinary skill in the art to combine the teaching of Moyne with Mathur because Mathur's teaching would improve Moyne's system by it provides the ability to support automatic sensing of devices to the users in the system.

12.   Referring to Claim 13, Moyne discloses comprising an object database storing one from the group of the first software object (refer to Col 8, Lines 40-60).

13.   Referring to Claim 14, Moyne discloses wherein the object database forms a portion of an Object Database Management System (refer to Col 13, Lines 45-55)

14.   Referring to Claim 15, Moyne discloses the network coupled to the self-configuring application service system and the self-configuring interface system (refer to Col 4, Lines 25-55 and Col 3, Lines 1-15, and Col 5, Lines 35-55).

15.   Referring to Claim 16, Moyne discloses wherein the network comprises one from the group of a Local Area Network, a Wide Area network, and the Internet (Local area network, refer to Col 4, Lines 65-67)

16.   Referring to Claim 17, Moyne discloses wherein the self-configuring interface system communications with the hardware subsystem in accordance with the electrical signal, and

communications with the self-configuring appliance services system in accordance with an event

code that corresponds to the electrical signal (refer Fig 2, Col 5, Lines 64-Col 6, Lines 15, and

Col 6, Lines 55-61 and Col 7, Lines 65 and Col 8, Lines 8).

17.   Referring to Claim 18, Moyne discloses wherein the self-configuring interface system

communicates with the hardware subsystem in accordance with the electrical signal, and

communicates with the software object and the self-configuring application service system in

accordance with an event code that corresponds to the electrical signal (refer to Col 5, Lines 64-

Col 6, Lines 55-61, Col 7, Lines 65 to Col 8, Lines 8, and Col 5, Lines 25-55).

18.   Referring to Claim 19, Moyne discloses wherein the self-configuring interface system

further comprises:

a signal exchange module coupled to the hardware subsystem, the signal exchange module

comprising a storage element for storing a hardware signal corresponding to an electrical signal

(refer to Col 5, Lines 54-Col 6, Lines 15, Col 6, Lines 55-61, and Col 7, Lines 65 - Col 8, Lines

8);

19.   Referring to Claim 20, Moyne discloses wherein the self-configuring interface system

further comprises:

a signal exchange module coupled to the hardware subsystem, the signal exchange module

comprising a storage element for storing a hardware signal corresponding to an electrical signal;

an event coding-decoding module coupled to map between an electrical signal and an event code

(refer to Col 5, Lines 54-Col 6, Lines 15, Col 6, Lines 55-61, and Col 7, Lines 65 - Col 8, Lines

8).

20.   Referring to Claim 21, Moyne discloses wherein the self-configuring interface system

further comprises:

a signal exchange module coupled to the hardware subsystem, the signal exchange module

comprising a storage element for storing a hardware signal corresponding to an electrical signal;

an event coding-decoding module coupled to map between an electrical signal and an event code

(refer to Col 5, Lines 54-Col 6, Lines 15, Col 6, Lines 55-61, and Col 7, Lines 65 - Col 8, Lines

8);

an inter-process communication module coupled to manage event-based communication with the

self-configuring application services system (refer to Col 5, Lines 54-Col 6, Lines 15, Col 6,

Lines 55-61, and Col 7, Lines 65 - Col 8, Lines 8).

19. Referring to Claim 22, Moyne discloses wherein the self-configuring interface system further

comprises:

a signal exchange module coupled to the hardware subsystem, the signal exchange module

comprising a storage element for storing a hardware signal corresponding to an electrical signal;

an event coding-decoding module coupled to map between an electrical signal and an event

code; and

an interprocess communication module coupled to manage event-based communication with the

self-configuring application services system and the second software object (refer to Col 5, Lines

54-Col 6, Lines 15, Col 6, Lines 55-61, and Col 7, Lines 65 - Col 8).

21.   Referring to Claim 29, Moyne discloses in a system (refer to Title) comprising a

hardware subsystem (manufacturing equipment, refer to Col 4, Lines 27-67) that includes a set of

components adapted to carry electrical signals (commands, refer to Col 4, Lines 50-67), each

electrical signal associated with one from the group of a sensing operation and a control

operation (refer to Col 5, Lines 25-55), a method for processing an electrical signal comprising

the step of:

        an application database (database 27, Col 20, Lines 60-65) referencing a first software

object (refer to Col 21, Lines 1-8) that corresponds to a manner of processing information

associated with an electrical signal (message, refer to Col 6, lines 1-5, and Col 14, Lines 50-67

and Col 15);

        a self-configuring application services system (refer to Col 5, Lines 15-25) comprising:

application service system configuration module (Main program module 21, refer to Col 7, Lines

60-67) coupled to the hardware subsystem (manufacturing equipment, refer to Col 4, Lines 27-

67) and coupled to retrieve application service configuration information from the application

database (refer to Col 8, Lines 1-15); and

the first software object (routine to be called, refer to Col 8, Lines 40-65);

        a signal database storing interface communication configuration information (22, refer to

Col 6, Lines 1-10) corresponding to a manner of managing communication between the

hardware subsystem and the self-configuring application services system (refer to Col 8, Lines

54-57 and Col 7, Lines 5-20) referencing a second software object (routine to be called, refer to

Col 8, Lines 40-65) that corresponds to a manner of processing information associated with an

electrical signal and associates an event code with the electrical signal

a self-configuring interface system (Message Parser 24, refer to Col 12, Lines 20-25)

coupled to the hardware subsystem and the application services system and comprising an

interface system configuration module coupled to retrieve interface configuration information

from the signal database and facilitate communication between the hardware subsystem and the

self-configuring application services system and the second software object (refer to Col 12,

Lines 20-35).

Although Moyne disclosed the invention substantially as claimed, Moyne did not

explicitly disclosing regarding the self-configuration interface system utilizes the information

retrieves from signal database to facilitate communication between hardware subsystem and self-

configuring application services system via plurality of protocols.

Mathur, in an analogous art disclosed the self-configuration interface system utilizes the

information retrieves from signal database to facilitate communication between hardware

subsystem and self-configuring application services system via plurality of protocols (refer to par

0093).

It would have been obvious for one of ordinary skill in the art to combine the teaching of

Moyne with Mathur because Mathur's teaching would improve Moyne's system by it provides

the ability to support automatic sensing of devices to the users in the system.

22.   Referring to Claim 30, Moyne discloses comprising an object database (database 22, refer

to Col 13, Lines 40-50, Col 8, Lines 15-67, and Col 16, Lines 1-15) storing one from the group

of the first software object (refer to Col 8, Lines 40-67).

23.   Referring to Claim 31, Moyne discloses wherein the object database forms a portion of

an Object Database Management System (refer to Col 13, Lines 45-55)

24.   Referring to Claim 32, Moyne discloses wherein a mapping between a set of electrical

signals and a set of event codes for those electrical signals associated with software objects

within the first set of software object (refer to Col 8)

25.   Referring to Claim 33, Moyne discloses: the system managing communication between

the hardware subsystem and the self-configuring interface system in accordance with the

electrical signals (refer to Col 4, Lines 20-67, Col 5, Lines 1-15, Lines 55-67, and Col 6); and

the system managing communication between the interface system and the first set of software

objects in accordance with the set of event codes (refer to Col 8, Lines 40-67).

26.   Referring to Claim 34, Moyne discloses wherein a mapping between a set of electrical

signals and a set of event codes for those electrical signals associated with software objects

within the second set of software object (refer to Col 8, Lines 40-67).

27.   Referring to Claim 35, Moyne discloses: the system managing communication between

the hardware subsystem and the interface system in accordance with the set of electrical signal

(refer to Col 4, Lines 20-67, Col 5, Lines 1-15, Lines 55-67, and Col 6); and

The system managing communication between the self-configuring interface system and the first

set of software objects and the second set of software objects in accordance with the set of event

codes (refer to Col 15, Col 16, Col 17, and Col 18, and Col 8, Lines 40-67).

28.   Referring to Claim 36, Moyne discloses the system executing program instruction

associated with the first set of software objects within a first computer system (refer to Col 5,

Lines 1-15, and Col 3, Lines 1-15, Col 5); and the system executing program instructions

associated with the second set of software objects within a second computer system (refer to Col

5 and Col 6 and Col 8).

29.   Referring to Claim 37. Moyne discloses the second computer system (refer to Col 4,

Lines 50-67, and Col 5, Lines 1-15) includes the hardware interface module.

Conclusion

Examiner's Notes: Examiner has cited particular columns and line numbers in the

references applied to the claims above for the convenience of the applicant. Although the

specified citations are representative of the teachings of the art and are applied to specific

limitations within the individual claim, other passages and figures may apply as well. It is

respectfully requested from the applicant in preparing responses, to fully consider the references

in entirety as potentially teaching all or part of the claimed invention, as well as the context of

the passage as taught by the prior art or disclosed by the Examiner. In the case of amending the

claimed invention, Applicant is respectfully requested to indicate the portion(s) of the

specification which dictate(s) the structure relied on for proper interpretation and also to verify

and ascertain the metes and bounds of the claimed invention.

Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is

reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this

final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Karen C. Tang whose telephone number is (571)272-3116. The

examiner can normally be reached on M-Thr 8 - 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, John Follansbee can be reached on (571)272-3964. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent
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system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR
system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Karen C Tang/
Primary Examiner, Art Unit 2451